

GenCore version 5.1.4-p5.4578  
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OM protein - protein search, using sw model

Run on: May 16, 2003, 10:36:10 ; Search time 15 Seconds  
(without alignments)  
76.908 Million cell updates/sec

Title: US-09-551-151a-43  
Perfect score: 64  
Sequence: 1 SPQGIAGGRNF 12

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 283224 seqs, 96134422 residues

Total number of hits satisfying chosen parameters: 3212

Minimum DB seq length: 0  
Maximum DB seq length: 18

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database: PIR\_73:\*

1: p1r1: \*  
2: p1r2: \*  
3: p1r3: \*  
4: p1r4: \*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	26.5	41.4	16	2	PH0773
2	26	40.6	15	2	A61391
3	25	39.1	10	2	C44787
4	24	37.5	9	2	PD0027
5	23	35.9	18	2	S19914
6	22.5	35.2	16	2	PH0767
7	22	34.4	12	2	S65626
8	22	34.4	13	2	PH0787
9	22	34.4	17	2	A61117
10	22	34.4	17	2	S15778
11	22	34.4	17	2	A49635
12	21	32.8	12	2	PH1454
13	21	32.8	14	2	B60414
14	21	32.8	14	2	B60842
15	21	32.8	14	2	A60840
16	21	32.8	14	2	S00172
17	21	32.8	15	2	S26515
18	21	32.8	15	2	PT0085
19	21	32.8	15	2	PH1443
20	20	31.2	8	2	A35768
21	20	31.2	10	2	C39745
22	20	31.2	10	2	A24196
23	20	31.2	12	2	PH1567
24	20	31.2	13	2	I50173
25	20	31.2	15	2	C56979
26	20	31.2	15	2	S33781
27	20	31.2	17	2	S57556
28	20	31.2	18	2	A28060
29	19	29.7	6	2	B56979

30	19	29.7	8	2	PT0323	Ig heavy chain CRD
31	19	29.7	9	2	D44787	callifmrfamide 13
32	19	29.7	10	2	S23371	T-cell receptor al
33	19	29.7	11	2	F58501	43.5k bile stone p
34	19	29.7	11	2	PC2330	cycloimmunoglobosc
35	19	29.7	13	2	D61458	19 kappa chain v-t
36	19	29.7	13	2	PH1772	T cell receptor al
37	19	29.7	14	2	A58503	kidney and bladder
38	19	29.7	14	2	S29486	GTP-binding protel
39	19	29.7	15	2	JT0610	leukocyte chemocat
40	19	29.7	15	2	PN0144	serine proteinase
41	19	29.7	16	2	A59155	multicystatin - to
42	19	29.7	17	2	F58502	41k stone protein
43	19	29.7	17	2	S16929	flavodoxin A - Azo
44	19	29.7	18	2	A24345	Ca2+-transporting
45	19	29.7	18	2	S23971	alpha-macroglobulin

## ALIGNMENTS

## RESULT 1

PH0773  
T-cell receptor beta chain (C7) - mouse (fragment)  
C:Species: Mus musculus (house mouse)  
C:Date: 17-Jul-1992 #sequence\_revision 17-Jul-1992 #text\_change 05-Nov-1999  
C:Accession: PH0773  
R:Casanova, J.L.; Romero, P.; Widmann, C.; Kourilsky, P.; Maryanski, J.L.  
J. Exp. Med. 174, 1371-1383, 1991  
A:Title: T cell receptor genes in a series of class I major histocompatibility complex allelic exclusion and antigen-specific repertoire.  
A:Reference number: PH0746; MUID:92078846; PMID:18356010  
A:Accession: PH0773  
A:Molecule type: mRNA  
A:Residues: 1-16 <CAS>  
A:Cross-references: EMBL:X60868; NID:950247; PIDN:CAA43257.1; PID:950248  
A:Experimental source: T lymphocyte  
C:Keywords: T-cell receptor

Query Match 41.4%; Score 26.5; DB 2; Length 16;  
Best Local Similarity 58.3%; Pred. No. 1.3e+02;  
Matches 7; Conservative 1; Mismatches 3; Indels 1;

OY 1 SP-QGIAGGRNF 11  
DB 4 SPQGIAGGRNF 15

## RESULT 2

A61391  
alpha-1-antitrypsin homolog - human (fragment)  
C:Species: Homo sapiens (man)  
C:Date: 09-Sep-1994 #sequence\_revision 09-Sep-1994 #text\_change 17-Mar-1999  
C:Accession: A61391  
R:Tanaka, N.; Sekiya, S.; Takamizawa, H.; Kato, N.; Moriyama, Y.; Fujimura, S.  
Jpn. J. Cancer Res. 82, 693-700 1991  
A:Title: Characterization of a 54 kDa, alpha-1-antitrypsin-like protein isolated from  
A:Reference number: A61391; MUID:91310496; PMID:1906655  
A:Status: preliminary  
A:Molecule type: protein  
A:Residues: 1-15 <TAN>

Query Match 40.6%; Score 26; DB 2; Length 15;  
Best Local Similarity 62.5%; Pred. No. 1.5e+02;  
Matches 5; Conservative 1; Mismatches 2; Indels 0;

OY 2 PQGIAGOR 9  
DB 3 PQGIAGOR 10

## RESULT 3

C44787

Calliphora vomitoria - bluebottle fly (Calliphora vomitoria)

C:Species: Calliphora vomitoria

C&gt;Date: 30-Sep-1993 #sequence\_revision 30-Sep-1993 #text\_change 17-Mar-1999

C:Accession: C44787

R:Duve, H.; Johnson, A.H.; Sewell, J.C.; Scott, A.G.; Orchard, I.; Rehfeld, J.F.; Thorpe

Proc. Natl. Acad. Sci. U.S.A. 89, 2326-2330, 1992

A:Title: Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH-2 neuropeptides (desi

A:Reference number: A41978; PMID:9219611; PMID:1549595

A:Accession: C44787

A:Status: preliminary

A:Molecule type: protein

A:Residues: 1-10 &lt;DUV&gt;

A:Keywords: amidated carboxyl end; neuropeptide

F:10/Modified site: amidated carboxyl end (Phe) #status experimental

Query Match

Best Local Similarity 39.1%; Score 25; DB 2; Length 10;

Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

OY 6 AGORNF 11

DB 2 AGODNF 7

RESULT 4

Pev-tachykinin - penaeid shrimp (Penaeus vannamei) (fragment)

C:Species: Penaeus vannamei

C&gt;Date: 21-Aug-1998 #sequence\_revision 21-Aug-1998 #text\_change 19-May-2000

C:Accession: PD0027

R:Mieto, J.; Veelaert, D.; Derua, R.; Waelkens, E.; Cerstaens, A.; Coast, G.; Devreese,

Biochem. Biophys. Res. Commun. 248, 406-411, 1998

A:Title: Identification of one tachykinin and two kinin-related peptides in the brain

A:Reference number: PD0027; PMID:96342103; PMID:9675150

A:Accession: PD0027

A:Molecule type: protein

A:Residues: 1-9 &lt;NIE&gt;

A:Comment: This peptide belongs to myotropic neuropeptides.

Query Match

Best Local Similarity 37.5%; Score 24; DB 2; Length 9;

Matches 4; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

OY 1 SPQGIAGOR 9

DB 1 APSGFLGMR 9

RESULT 5

Choline O-acetyltransferase (EC 2.3.1.6) - human (fragment)

C:Species: Homo sapiens (man)

C&gt;Date: 30-Jun-1992 #sequence\_revision 30-Jun-1992 #text\_change 05-May-2000

C:Accession: S19914

R:Toussaint, J.L.; Bausero, P.; Stricker, C.; Geoffroy, V.; Simoni, P.; Kempf, J.; Schmi

submitted to the EMBL Data Library, March 1992

A:Description: Human choline acetyltransferase gene: analysis of transcription control

A:Reference number: S19914

A:Accession: S19914

A:Molecule type: DNA

A:Residues: 1-18 &lt;TOU&gt;

A:Cross-references: EMBL:X65023

C:Keywords: acetyltransferase; coenzyme A

Query Match

Best Local Similarity 35.9%; Score 23; DB 2; Length 18;

Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

OY 3 QGIAGQ 8

DB 13 QGPAQ 18

RESULT 6

T-cell receptor beta chain (J5) - mouse (fragment)

C:Species: Mus musculus (house mouse)

C&gt;Date: 17-Jul-1992 #sequence\_revision 17-Jul-1992 #text\_change 05-Nov-1999

C:Accession: PH0767

R:Casanova, J.L.; Romero, P.; Widmann, C.; Kourilsky, P.; Maryanski, J.L.

J. Exp. Med. 174, 1371-1383, 1991

A:Title: T cell receptor genes in a series of class I major histocompatibility comple

allelic exclusion and antigen-specific repertoire.

A:Reference number: PH0746; PMID:92078846; PMID:1836010

A:Accession: PH0767

A:Molecule type: mRNA

A:Residues: 1-16 &lt;CAS&gt;

A:Cross-references: EMBL:X60861; NID:952752; PIDN:CAAA3251.1; PID:952753

A:Experimental source: T lymphocyte

C:Keywords: T-cell receptor

Query Match

Best Local Similarity 35.2%; Score 22.5; DB 2; Length 16;

Matches 6; Conservative 2; Mismatches 2; Indels 1; Gaps 1;

OY 1 SPQGIAGORNF 11

DB 5 SPQG-SNERLF 14

RESULT 7

Phosphorylase b - rabbit (fragments)

C:Species: Oryctolagus cuniculus (domestic rabbit)

C&gt;Date: 14-Feb-1997 #sequence\_revision 13-Mar-1997 #text\_change 13-Mar-1997

C:Accession: S65626

R:luo, S.; Martin, B.L.; Senshu, T.; Graves, D.J.

Arch. Biochem. Biophys. 318, 362-369, 1995

A:Title: Enzymatic determination of glycogen phosphorylase and a peptide of the phospho

A:Reference number: S65626; PMID:95251385; PMID:7733664

A:Accession: S65626

A:Status: preliminary

A:Molecule type: protein

A:Residues: 1-3;4-12 &lt;LUO&gt;

Query Match

Best Local Similarity 34.4%; Score 22; DB 2; Length 12;

Matches 4; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

OY 4 GIAGORN 10

DB 4 GIAGVEN 10

RESULT 8

T-cell receptor alpha chain (F8) - mouse (fragment)

C:Species: Mus musculus (house mouse)

C&gt;Date: 17-Jul-1992 #sequence\_revision 17-Jul-1992 #text\_change 30-May-1997

C:Accession: PH0787

R:Casanova, J.L.; Romero, P.; Widmann, C.; Kourilsky, P.; Maryanski, J.L.

J. Exp. Med. 174, 1371-1383, 1991

A:Title: T cell receptor genes in a series of class I major histocompatibility comple

allelic exclusion and antigen-specific repertoire.

A:Reference number: PH0746; PMID:92078846; PMID:1836010

A:Accession: PH0787

A:Molecule type: mRNA

A:Residues: 1-13 &lt;CAS&gt;

A:Cross-references: EMBL:X60891

A:Experimental source: T lymphocyte

C:Keywords: T-cell receptor

Query Match

Best Local Similarity 34.4%; Score 22; DB 2; Length 13;

Matches 4; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 6 AGORNF 11  
11:11  
DB 5 AGVGNF 10

RESULT 9  
A61117

somatostatin precursor processing enzyme (EC 3.4.21.-) - American goosetfish (fragment)  
C:Species: Lophius americanus (American goosetfish)  
C:Date: 10-Mar-1994 #sequence\_revision 10-Mar-1994 #text\_change 13-Sep-1996  
C:Accession: A61117  
R:MacKinn, R.B.; Noe, B.D.; Spiess, J.  
Endocrinology 129, 2263-2265, 1991  
A:Title: Identification of a somatostatin-14-generating propeptide converting enzyme as  
A:Reference number: A61117; MUID:92007528; PMID:1680673  
A:Accession: A61117

A:Molecule type: protein  
A:Residues: 1-17 <MAC>  
A:Experimental source: pancreatic islets  
C:Superfamily: kexin; subtilisin homology  
C:Keywords: hydrolase; serine proteinase

Query Match 34.4%; Score 22; DB 2; Length 17;  
Best Local Similarity 66.7%; Pred. No. 9.8e+02;  
Matches 4; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

OY 7 GORNF 12  
11:11  
DB 1 GYRNIN 6

RESULT 10  
S15778

Insulin chain B - bovine (fragments)  
C:Species: Bos primigenius indicus x Bos primigenius taurus (cattle)  
C:Date: 19-Mar-1997 #sequence\_revision 16-Jul-1999 #text\_change 16-Jul-1999  
C:Accession: S15778; S15779  
R:Bergman, T.; Agerberth, B.; Joernvall, H.  
FEBS Lett. 283, 100-103, 1991  
A:Title: Direct analysis of peptides and amino acids from capillary electrophoresis.  
A:Reference number: S15778; MUID:91243852; PMID:2037061  
A:Accession: S15778

A:Status: preliminary  
A:Molecule type: protein  
A:Residues: 1-8 <FEB1>  
A:Accession: S15779  
A:Status: preliminary  
A:Molecule type: protein  
A:Residues: 9-17 <FEB2>  
C:Superfamily: Insulin  
C:Keywords: hormone; pancreas

Query Match 34.4%; Score 22; DB 2; Length 17;  
Best Local Similarity 42.9%; Pred. No. 9.8e+02;  
Matches 3; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

OY 5 IAGORNF 11  
11:11  
DB 5 VCGERGF 11

RESULT 11  
A49635

Gol11-mbp - human (fragment)  
C:Species: Homo sapiens (man)  
C:Date: 01-Nov-1996 #sequence\_revision 01-Nov-1996 #text\_change 05-Nov-1999  
C:Accession: A49635  
R:Pribbyl, T.M.; Campagnoni, C.W.; Kampf, K.; Kashima, T.; Handley, V.W.; McMahon, J.; Ca  
Proc. Natl. Acad. Sci. U.S.A. 90, 10695-10699, 1993  
A:Title: The human myelin basic protein gene is included within a 179-kilobase transcrip  
A:Reference number: A49635; MUID:94068468; PMID:7504278  
A:Accession: A49635

A:Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: DNA  
A:Residues: 1-17 <RES>  
A:Cross-references: GB:L18862; NID:9435054; PIDN:AAV2008.1; PID:9435055

Query Match 34.4%; Score 22; DB 2; Length 17;  
Best Local Similarity 57.1%; Pred. No. 9.8e+02;  
Matches 4; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

OY 6 AGORNF 12  
11:11  
DB 5 AGKRELN 11

RESULT 12  
PH1454

T-cell receptor alpha chain (clone A3/72.2) - mouse (fragment)  
C:Species: Mus musculus (house mouse)  
C:Date: 10-Mar-1994 #sequence\_revision 10-Mar-1994 #text\_change 11-Apr-1995  
C:Accession: PH1454  
R:Casanova, J.L.; Martinon, F.; Gournier, H.; Barra, C.; Pannetier, C.; Regnault, A.;  
J. Exp. Med. 177, 811-820, 1993  
A:Title: T cell receptor selection by and recognition of two class I major histocompa  
A:Reference number: PH1430; MUID:93171821; PMID:8436911  
A:Accession: PH1454  
A:Molecule type: mRNA  
A:Residues: 1-12 <CAS>  
A:Experimental source: cytolytic T-lymphocyte  
C:Superfamily: Immunoglobulin homology  
C:Keywords: receptor; T-cell

Query Match 32.8%; Score 21; DB 2; Length 12;  
Best Local Similarity 42.9%; Pred. No. 1.1e+03;  
Matches 3; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

OY 5 IAGORNF 11  
11:11  
DB 3 VTGYNF 9

RESULT 13  
C60414

somatostatin - slider turtle  
C:Species: Pseudemys scripta (slider)  
C:Date: 11-Feb-1993 #sequence\_revision 11-Feb-1993 #text\_change 31-Dec-1993  
C:Accession: C60414  
R:Conlon, J.M.; Hicks, J.W.  
Peptides 11, 461-466, 1990  
A:Title: Isolation and structural characterization of insulin, glucagon and somatosta  
A:Reference number: A60414; MUID:90341082; PMID:1974347  
A:Accession: C60414

A:Status: preliminary  
A:Molecule type: protein  
A:Residues: 1-14 <CON>  
C:Superfamily: somatostatin  
C:Keywords: neuropeptide

Query Match 32.8%; Score 21; DB 2; Length 14;  
Best Local Similarity 66.7%; Pred. No. 1.3e+03;  
Matches 4; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 6 AGORNF 11  
11:11  
DB 1 AGCKNF 6

RESULT 14  
B60842

somatostatin I - coho salmon  
C:Species: Oncorhynchus kisutch (coho salmon)  
C:Date: 30-Sep-1993 #sequence\_revision 30-Sep-1993 #text\_change 07-May-1999  
C:Accession: B60842  
R:Plisetkaya, E.M.; Pollock, H.G.; Rouse, J.B.; Hamilton, J.W.; Kimmel, J.R.; Andrew

Gen. Comp. Endocrinol. 63, 252-263, 1986  
A:Title: Characterization of Coho salmon (Oncorhynchus kisutch) islet somatostatins.  
A:Reference number: A60842; MUID:87055212; PMID:2877919  
A:Accession: B60842  
A:Molecule type: protein  
A:Residues: 1-14 <PLI>  
C:Superfamily: somatostatin  
C:Keywords: hormone; pancreatic islet

Query Match 32.8%; Score 21; DB 2; Length 14;  
Best Local Similarity 66.7%; Pred. No. 1.3e+03;  
Matches 4; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 6 AGCKNF 11  
11 : 11  
DB 1 AGCKNF 6

## RESULT 15

A60840  
somatostatin I - European eel  
N:Alternate names: somatostatin-14  
C:Species: Anguilla anguilla (European eel)  
C:Date: 30-Sep-1993 #sequence\_revision 30-Sep-1993 #text\_change 20-Mar-1998  
C:Accession: A60840  
R:Conlon, J.M.; Deacon, C.F.; Hazen, N.; Henderson, I.W.; Thim, L.  
Gen. Comp. Endocrinol. 72, 181-189, 1988  
A:Title: Somatostatin-related and glucagon-related peptides with unusual structural feat  
A:Reference number: A60840; MUID:89065329; PMID:2904391  
A:Accession: A60840  
A:Molecule type: protein  
A:Residues: 1-14 <CON>  
C:Superfamily: somatostatin  
C:Keywords: hormone; pancreatic islet

Query Match 32.8%; Score 21; DB 2; Length 14;  
Best Local Similarity 66.7%; Pred. No. 1.3e+03;  
Matches 4; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 6 AGCKNF 11  
11 : 11  
DB 1 AGCKNF 6

Search completed: May 16, 2003, 10:38:24  
Job time : 16 secs